

ABSTRACT OF THE DISCLOSURE

The apparatus has a housing with a main chamber in which a rotor is situated. A drive shaft drives the rotor about a longitudinal axis of rotation. The housing has a fluid inlet and a fluid outlet, the fluid inlet communicating with an inlet region and a fluid outlet communicating with an exit region. The outer surface of the rotor forms one boundary for the fluid heat generating region and is confronted by the inner surface of the main chamber which is the other boundary. At least one of these surfaces is angularly inclined relative to the axis of rotation of the drive shaft and rotor. By bodily shifting the rotor in a direction along the longitudinal axis, an increase or decrease in the distance between the outer and inner surfaces is possible in order to adjust for wear or to change the degree of shear experienced by the passing fluid.